

## WHAT IS CLAIMED IS:

1. An image forming apparatus comprising:
  - a first unit having a developer container holding developer containing toner and carrier, and a developer holder to hold and transfer the developer held in the developer container;
  - a second unit to supply toner to the developer container; and
  - a processing unit to determine time of replacement of the first unit, from information on a toner supply amount from the second unit or information on an operation amount of the developer holder.
2. The image forming apparatus according to claim 1, wherein the processing unit determines a use amount of the carrier based on the information on the toner supply amount or the information on the operation amount of the developer holder, and based on the result of determination, determines that it is time to replace the first unit.
3. The image forming apparatus according to claim 1, removably comprising the first unit and the second unit.
4. The image forming apparatus according to claim 1, wherein the first unit is a process cartridge further including an electrostatic drum and a charging roller.

5. The image forming apparatus according to claim 1,  
wherein the second unit has a toner supply member to  
supply the toner to the developer container,

5           and wherein said information on the toner supply  
amount includes an operation amount of the toner supply  
member.

6. The image forming apparatus according to claim 5,  
10       wherein the toner supply member is a toner supply screw,  
          and wherein the processing unit calculates the  
operation amount of the toner supply member from the  
number of revolutions or period of rotation of the  
screw.

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7. The image forming apparatus according to claim 1,  
wherein the first unit further has a toner density  
sensor to detect a toner density in the developer  
container,

20           and wherein the processing unit performs toner  
supply from the second unit in correspondence with the  
toner density detected by the toner density sensor, and  
calculates the information on the toner supply amount  
from a detection value from the toner density sensor.

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8. The image forming apparatus according to claim 2,  
wherein the developer container further has a stirring  
member to stir the developer,

and wherein the processing unit calculates the  
5 use amount of the carrier from the number of  
revolutions or period of rotation of the stirring  
member.

9. The image forming apparatus according to claim 1,  
10 wherein the first unit has a storage medium for storing  
the information on the toner supply amount or the  
information on the operation amount of the developer  
holder, and further has a data transmission/reception  
device for the storage medium.

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10. A developing unit attachable/detachable to/from an  
image forming apparatus, comprising:

a developer container holding developer  
containing toner and carrier;

20 a developer holder to hold and transfer the  
developer held in the developer container; and

a storage medium having an area for storing  
information on a toner supply amount to the developer  
container, and an area for storing information on an  
25 operation amount of the developer holder.

11. The developing unit according to claim 10, wherein  
the information on the toner supply amount or the  
information on the operation amount of the developer  
holder is information indicating a use amount of the  
5 carrier.

12. The developing unit according to claim 10, wherein  
the storage medium further has a storage area for  
storing threshold information of the toner supply  
10 amount or threshold information of the operation amount  
of the developer holder.

13. The developing unit according to claim 12, wherein  
the threshold information of the toner supply amount or  
15 the threshold information of the operation amount of  
the developer holder is information indicating  
expiration of life of the carrier.

14. The developing unit according to claim 10, wherein  
20 the developing unit is a process cartridge further  
including an electrostatic drum and a charging roller.

15. A storage medium installed in a developing unit  
attachable/detachable to/from an image forming  
25 apparatus,

wherein the developing unit has:

a developer container holding developer  
containing toner and carrier; and

a developer holder to hold and transfer the  
developer held in the developer container,

5 and wherein the storage medium has:

a storage area for storing information on a toner  
supply amount to the developer container; and

a storage area for storing information on an  
operation amount of the developer holder.

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16. The storage medium according to claim 15, wherein  
the information on the toner supply amount or the  
information on the operation amount of the developer  
holder is information indicating a use amount of the  
15 carrier.

17. The storage medium according to claim 15, further  
having a storage area for storing threshold information  
of the toner supply amount or threshold information of  
20 the operation amount of the developer holder.

18. The storage medium according to claim 17, wherein  
the threshold information of the toner supply amount or  
the threshold information of the operation amount of  
25 the developer holder is information indicating  
expiration of life of the carrier.